

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figures 1-3.

Drawing Objections

The Office Action has objected to the drawings under [37 CFR 1.83(a) or 37 CFR 1.21(d)]. The Office Action alleges that the labeled elements in the figures 1-3 need uniform lettering and not be hand-written. New drawings are submitted and this objection is respectfully traversed. Further, as Applicant does not believe that further drawing corrections are necessary, no further drawings corrections have been submitted.

Accordingly, withdrawal of the Examiner's drawing objections is respectfully requested.

Attachment: Drawing Replacement Sheet

REMARKS

This is a response to the Official Action dated June 3, 2008. No claims have been amended, no claims have been canceled, and no claims have been added; as such, claims 1-6 are now pending in this application. Claim 1 is the only independent claim. Reconsideration and allowance is requested in view of the following remarks.

35 USC 102 Rejections and Response

Claims 1 and 3-5 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over Plassche et al (4,280,089, hereinafter referred to as "Plassche '089"). Applicant respectfully traverses this rejection.

Plassche '089 asserts a network of resistors of differing value (figure 1, elements 11-15), a potential divider (figure 1, element 2), and a power supply or voltage source (figure 2, element 86), a network of potential dividers of differing outputs (figure 1, element 2).

Claim 1 recites: *[a] control circuit for diode based RF circuit comprising at least one analog commutating device having a plurality of -digital control lines, a plurality of selectable poles and at one common pole, the digital control lines being connected to a digital data generator and the selectable poles and at least one common pole being connected to the control terminal(s) of the diode(s) of the RF circuit through a network of resistors of differing values and a potential divider and a power supply or voltage source or a network of potential dividers of differing outputs and a power supply or voltage source, the analog commutating device establishing an internal coupling between the common pole and one of the selectable poles depending upon the digital value generated by the digital data generator and appearing at the digital control lines.*

Plassche '089 discloses [a] control circuit having a network of resistors of differing values and a potential divider and a power supply or voltage source. Plassche '089 does not disclose [a] control circuit for diode based RF circuit comprising at least one analog commutating device having a plurality of -digital control lines, a plurality of selectable poles and at one common pole, the digital control lines being connected to a digital data generator and the selectable poles and at least one common pole being connected to the control terminal(s) of the diode(s) of the RF circuit

through a network of potential dividers of differing outputs and a power supply or voltage source, the analog commutating device establishing an internal coupling between the common pole and one of the selectable poles depending upon the digital value generated by the digital data generator and appearing at the digital control lines. Indeed, Plassche '089 teaches an attenuation arrangement wherein a variation in the output voltage over two consecutive voltage increments is realized with a minimum number of switching actions. This is primarily used to regulate pulse generation. As such, Plassche '089 does not teach each and every claimed feature of claim 1.

Moreover, the present application discloses a control circuit for diode based radio frequency (RF) circuit and as such generates a control signal that is applied to the control terminal (CT) of separate, diode-based circuits. Plassche '089 has a signal input terminal and a signal output terminal and various means of controlling the amplitude of a signal at the output terminal.

Additionally, Plassche '089 circuit itself comprises the signal path whose attenuation is to be controlled. Thus, the signal to be controlled is directly coupled to one or more node of the resistive networks and switching networks, and the varying amplitude output is directly derived from another node of the same network. Whereas, the circuit according to the present application has no signal path whose attenuation is to be controlled but rather only provides the temperatures controlled DC voltage to the control terminal of the diode based RF (e.g. PIN diode-based attenuator).

Further, Plassche '089 the output voltage is explicitly a function of the applied input signal whereas the present invention does not necessarily produce a stepwise change in the output terminal voltage. On fact, the preferred embodiment has a constant output voltage and a stepwise varying output resistance under no-load conditions.

Certainly, the RF resistance of the RF diodes (such as PIN or Schottky barrier diode) determines RF performance (such as attenuation, phase shift) of the RF circuit. The circuit according to the present application is a driver circuit that provides the bias voltage/current to the RF diodes of the diode based RF circuit. The invented driver circuit switches the resistors of the resistive network to control the bias voltage/current of the RF diodes of the RF circuit in such a way

that the stepwise RF performance of the RF circuits remains unchanged over the change of circuit temperature. Thus, the present invented circuit is not an attenuator circuit but it is a driver circuit of the diode based RF circuits (attenuator, phase shifter, etc), whereas Plassche '089 is simply an attenuator circuit.

As far as the structure is concerned: in case of the cited patent, the step attenuator consists of two numbers of multiplexer circuits (L and K). For any attenuation step, both the multiplexers are enable (ON) and the signal which is to be attenuated passes through both the multiplexer circuit. That means signal path will be complete only when both the multiplexers are ON. In the present invention, (it is not a step attenuator circuit but a driver circuit of the diode based RF circuit), through the driver circuit consists of two numbers of multiplexer circuit but only one multiplexer at a time (for any one attenuation setting) will be enable. This is done by using EN1 and EN2 in combination with a not gate and with the help of enable pines of the multiplexer circuits. Thus in the present invention the control/voltage (it is not signal voltage which is driver circuit of the diode based RF circuit), through the driver circuit consists of two numbers of multiplexer circuit but only one multiplexer at a time (for any one attenuation setting) will be enable. This is done by using EN1 and EN2 in combination with a not gate and with the help of enable pines of the multiplexer circuits. Thus in the present invention the control/voltage (it is not signal voltage which is to be attenuated as in the case of the Plassche '089 patent) will pass through only any one of the two multiplexer.

Plassche '089, therefore, fails to teach or suggest various features of independent claim 1. Furthermore, at least for the reason disclosed above, claims 3-5 overcome Plassche '089 because they depend on independent claim 1.

Applicant further submits that the Office Action has failed to reject Applicant's **claimed invention** and therefore has not created a *prima facie* case against patentability. The Examiner has only paraphrased applicant's claims, leaving in those elements the Office Action believed were found in the prior art, and leaving out those that the Office Action believed were absent or unimportant. Therefore, in making the rejections, the Office Action has only rejected his paraphrasing of applicant's claims, failing to specifically cite and identify various elements of

Applicant's claims. For example, with respect to claim 1, the Office Action has not identified, nor do any of the references teach or suggest, a control circuit for diode based RF circuit, a plurality of selectable poles and at one common pole, or one common pole being connected to the control terminal(s) of the diode(s) of the RF circuit and the analog commutating device establishing an internal coupling between the common pole and one of the selectable poles depending upon the digital value generated by the digital data generator. Similarly, the Office Action has not identified, nor do any of the references teach or suggest how the virtual and real world distinction exists with respect to a first management apparatus and a second management apparatus that manage the first and second privilege information, respectively. Although Applicant submits that Plassche '089 discloses or suggests the features recited in these claims for at least the reasons noted above, Applicant respectfully requests the Office Action to clearly identify where such features are found, should the Office Action continue to rely upon the reference.

Accordingly, Applicant respectfully requests that the rejection of claims 1 and 3-5 under 35 U.S.C. § 102(b) be withdrawn.

35 USC 103 Rejections and Response

The 103(a) Case law

According to Federal Circuit precedent, the burden of establishing a *prima facie* case of obviousness under 35 U.S.C. § 103 rests squarely on the shoulders of the Examiner. *In re Rinehart*, 531 F.2d 1048, 1052 (C.C.P.A. 1976); *accord*. MPEP 2142. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *See, e.g., Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) ("To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references"); *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987) ("When a rejection depends on a combination of prior art references, there must be some teaching, suggestion,

or motivation to combine the references”; *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (“Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination”); *accord*. MPEP 2143.

Second, there must be a reasonable expectation that the proposed modifications or combination would be successful. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097, 231 USPQ 375 (Fed. Cir. 1986); *accord*. MPEP 2143.02. Finally, the prior art reference (or references when combined) must teach or suggest each and every claim limitation. *See, e.g., In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *accord*. MPEP 2143.03.

35 USC 103 Argument

Claim 2 has been rejected under 35 U.S.C. § 103 as being unpatentable over Plassche ‘089. Applicant respectfully traverses this rejection.

Applicant respectfully submits that there is no motivation for or suggestion of the attenuations arrangement of Plassche ‘089 85 to “teach a control circuit for diode based RF circuit comprising at least one analog commutating device having a plurality of -digital control lines, a plurality of selectable poles and at one common pole, the digital control lines being connected to a digital data generator and the selectable poles and at least one common pole being connected to the control terminal(s) of the diode(s) of the RF circuit and the analog commutating device establishing an internal coupling between the common pole and one of the selectable poles depending upon the digital value generated by the digital data generator and appearing at the digital control lines.” Applicant notes that even when obviousness is based on a single prior art reference, there must be a showing of suggestion or motivation to modify the teachings of that reference. *See B.F. Goodrich Co v. Aircraft Breaking Sys. Corp.*, 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996).

Routine Skill - To account for these deficiencies within Sato, the Office Action additionally concludes, without providing any supporting evidence, that these features are “routine skill” (Office Action at the bottom of page 3).

In response, “assertions of technical facts in areas of esoteric technology must always be supported by citation to some reference work recognized as standard in the pertinent art and the appellant given, in the Patent Office, the opportunity to challenge the correctness of the assertion or the notoriety or repute of the cited reference.” *In re Pardo and Landau*, 214 USPQ 673, 677 (CCPA 1982). The support must have existed at the time the claimed invention was made. *In re Merck & Co., Inc.*, 231 USPQ 375, 379 (Fed. Cir. 1986).

“Allegations concerning specific ‘knowledge’ of the prior art, which might be peculiar to a particular art should also be supported and the appellant similarly given the opportunity to make a challenge.” *In re Pardo and Landau*, 214 USPQ 673, 677 (CCPA 1982).

Moreover, the procedures established by Title 37 of the Code of Federal Regulations expressly entitle the Applicant to an Examiner’s affidavit upon request. Specifically, “when a rejection in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.” 37 C.F.R. §1.104(d) (2).

As such, **Applicant hereby requests a reference or an Examiner’s affidavit** to support this officially noticed position of obviousness or what is well known.

Further, note that if this reference or Examiner’s affidavit is not provided, the assertions of what is well known **must** be withdrawn. See M.P.E.P. §2144.03.

Also, note that the failure to provide any objective evidence to support the challenged use of Official Notice constitutes **clear and reversible error**. *Ex parte Natale*, 11 USPQ2d 1222, 1227-1228 (Bd. Pat. App. & Int. 1989).

Accordingly, Applicant respectfully requests that the rejection of claim 2 under 35 U.S.C. § 103(a) be withdrawn.

Last, claim 6 has not been rejected by the examiner and is therefore considered as having allowable subject matter.

CONCLUSION

In view of the above amendment and remarks, applicant believes the pending application is in condition for allowance.

In view of the foregoing arguments, all claims are believed to be in condition for allowance. If any further issues remain, the Examiner is invited to telephone the undersigned to resolve them.

This response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicant expressly does not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. DAD-0020 from which the undersigned is authorized to draw.

Dated: September 12, 2008

Respectfully submitted,

By 
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Attachments: Drawings Replacement Sheet
Abstract Replacement Sheet